

## **REMARKS**

Claims 18-29 and 42-49 are pending in the application. Claims 48 and 49 are newly added. Reconsideration of this application is respectfully requested.

A Declaration Under Rule 132 of Dr. Matthew O. Ward accompanies this Amendment. Dr Ward's testimony is pertinent to the rejections made in the Office Action.

The Office Action rejects claims 42 and 44-47 under 35 U.S.C. 102(b) as anticipated by U.S. Patent No. 5,774,878 to Marshall, hereafter Marshall.

This rejection is erroneous because Marshall lacks steps of independent claims 42 and 47. With respect to claim 42, Marshall lacks step (a) because Marshall does not disclose a histogram. In the final Office Action dated March 11, 2003, the Examiner contends that "'histrogram' is a broadly defined chart" and that Marshall's Figures 3a-3d show frequency of occurrence groupings and that some of the populations have all bars.

Contrary to the Examiner's contention, Marshall's Figures 3a-3d do not show a histogram. The Random House Webster's College Dictionary, New York Random House, 1991, at page 636 defines histogram as:

"n. a bar graph of a frequency distribution in which the bars are displayed proportionate to the corresponding frequencies."

This definition is accepted as accurate and unambiguous in the art. Ward Declaration, Paragraph 8. Marshall's Figures 3a-3d do not show frequency of occurrence groupings Ward Declaration, Paragraph 9. Marshall's Figures 3a-3d show a display that has a plurality of metaphors, each representing a different

financial instrument. The metaphors are grouped by industry. The metaphor grouping is not a bar proportional to a frequency. Ward Declaration, Paragraph 9. In fact, it is up to the viewer to group and count any of the metaphors of interest to attain a frequency of occurrence. Thus, the metaphor arrangement shown in Marshall's Figures 3a-3d is not a histogram. Ward Declaration, Paragraph 9.

Still with respect to claim 42, Marshall lacks steps (b) and (c) because Marshall lacks the display elements of a histogram for which the filter condition is identified and with which the actuator is associated.

With respect to claim 44, Marshall does not disclose or suggest for each of the display elements of the histogram a parameter limiter that is a filter condition for the associated grouping of the investment parameter.

With respect to claim 45, Marshall's display elements are not bars. Ward Declaration, Paragraph No. 9.

With respect to claim 46, Marshall does not disclose or suggest a step of presenting another histogram that includes another plurality of display elements that represent the investment parameter filtered by a selected one of the filter conditions. Marshall does not disclose or suggest a histogram. Ward, Paragraph No. 9. Moreover, Marshall presents only a single display of a virtual reality world and not two as recited in claim 46.

With respect to claim 47, Marshall lacks the combination of steps (a) and (b) because Marshall does not disclose or suggest concurrently presenting to a user (a) a plurality of filter parameters and, based on a selection of one or more of the filter parameters defining a first filter pass, (b) a preview of a result of the first filter pass. Marshall does not disclose or suggest a concurrent presentation to a user of a plurality of filter parameters for selection by the user and a preview

of a result of a first filter pass based on user selection of one or more of the filter parameters. Marshall presents interface panel 20 of filter choices and then, after selection by the user, presents a different display of the result of the filter choices made by the user. The two displays are not presented concurrently to the user as recited in step (b) of claim 47.

The Examiner contends that Applicant reads a “preview” limitation into the claim 47, which does not exist. The Examiner states that “...preview is somewhat of a misnomer because the user is just viewing the results of the current search. The only reason that it can be considered a ‘preview’ is because the user plans on modifying the search, which is not relevant to the claim.”

The plain language of claim 47 recites that the user be concurrently presented with a plurality of filter parameters for selection by the user and a preview of a result of a first filter pass based on user selection of one or more of the filter parameters. This language cannot be ignored or dismissed. Under 35 U.S.C. 102(b), a rejection of a claim is untenable where the reference does not disclose an element that is recited in the claim. In this case, Marshall does not disclose the combination of steps (a) and (b) of claim 47. Marshall does not concurrently present to the user interface panel 20 and his virtual reality world Figs. 3a – 3d. Rather, Marshall presents them to the user at two different times. Ward Declaration, Paragraph No. 10. Therefore, Marshall does not disclose or suggest the combination of steps (a) and (b) of claim 47.

Marshall also lacks step (c) of claim 47. Marshall performs a filter pass before any display of the result is shown to the user and not after as recited by step (c) of claim 47.

Marshall further lacks step (d) because Marshall cannot repeat what Marshall does not do, namely steps (b) and (c). Moreover, Marshall does not

even repeat any filter pass step, because Marshall only discloses a single pass filter. Ward Declaration, Paragraph No. 10.

For the reason set forth above, it is submitted that the rejection of claims 42 and 44-47 under 35 U.S.C. 102(b) as anticipated by Marshall is erroneous and should be withdrawn.

The Office Action rejects claims 18-21 and 24-27 under 35 U.S.C 103(a) as unpatentable over Marshall in view of U.S. Patent No. 4,221,003 to Chang et al., hereafter Chang.

Marshall lacks the step of performing a plurality of  $n$  filter passes as recited by independent claims 18 and 24. Marshall performs only a single filter pass by entry of filter choices to interface panel 20. When the user is satisfied with the choices, the user operates mix switch 24, which creates a configuration of the virtual reality world based on the user's choices and stores the configuration for later retrieval. There is no second chance opportunity for the user to perform a subsequent filter pass. In short, Marshall does not disclose or suggest a multi-pass filter of the financial instruments. Ward Declaration, Paragraph No. 11.

Marshall also lacks the step of presenting on the viewing screen a population chart showing the population of the financial instruments based on the proposed filter condition of an  $i^{\text{th}}$  filter pass, where  $i$  is any integer from 1 to  $n$  as recited by independent claims 18 and 24. Marshall's filter pass is a proposed one only until the user activates mix switch 24. This locks the filter choices made by the user into an actual filter pass that is stored as a configuration of a virtual reality world. When the virtual reality world is later displayed, the actual filter pass is then performed on the financial instruments. Thus, Marshall does not disclose or suggest presenting on the viewing screen a population chart showing

the population of the financial instruments based on the proposed filter condition of an  $i^{\text{th}}$  filter pass as recited by independent claims 18 and 24.

Marshall also lacks the feature that the proposed filter condition includes at least one investment parameter selected by use of the computer input device and all filter conditions for previously performed ones of the filter passes. Marshall performs only a single filter pass. Ward Declaration, Paragraph No. 10. Therefore, Marshall's single filter pass cannot include all filter conditions for previously performed ones of the filter passes, as recited by independent claims 18 and 24.

Marshall further lacks the step of repeating the steps of presenting on the viewing screen a plurality of investment parameters, presenting on the viewing screen a population chart and executing the proposed filter pass until the  $n^{\text{th}}$  filter pass is performed, as recited by independent claims 18 and 24. Claims 18 and 24 further define  $n$  as a plurality of filter passes. Marshall only performs a single filter pass and not a plurality of filter passes. Ward Declaration, Paragraph Nos. 10 and 11. Therefore, Marshall does not disclose or suggest repeating any filter steps of a multi-pass filter, i.e., repeating the recited steps for a plurality of  $n$  filter passes.

Chang also does not disclose or suggest the aforementioned deficiencies of Marshall and the Office Action does not contend that Chang does supply such deficiencies. Therefore, the conclusion of obviousness is erroneous.

Further, the Office Action concedes that Marshall does not disclose that the population chart for the  $i^{\text{th}}$  filter condition differs from the population chart for the  $i^{\text{th}} - 1$  filter pass. The Office Action cites Chang as disclosing a bubble domain relational database that provides certain search efficiencies based on a sequence of search queries. However, Chang neither discloses nor suggests a multi-pass filter of financial instruments nor population charts, as recited in claims

18 and 24. Nor does Marshall provide any suggestion of a multi-pass filter or a population chart as recited in claims 18 and 24. Without any such suggestions, the conclusion of obviousness is erroneous.

The Office Action provides no motivation for one skilled in the art of virtual reality display of financial instruments to look to the bubble domain relational database art. The Examiner merely cites the purpose of minimizing search time in support of the combination of Marshall and Chang. This does not support motivation. In fact, it is highly unlikely that one of ordinary skill in the art of virtual display technology would look to the bubble domain relational database art, as these two arts are non-analogous. Ward Declaration, Paragraph No. 12.

The Office Action suggestion to use Marshall and Chang in combination is improperly based on the hindsight of Applicant's disclosure. Such hindsight reconstruction of the art cannot be the basis of a rejection under 35 U.S.C. 103. The prior art itself must suggest that modification or provide the reason or motivation for making such modification. In re Laskowski, 871 F.2d 115, 117, 10 USPQ 2d 1397, 1398-1399 (CAFC, 1989). "The invention must be viewed not after the blueprint has been drawn by the inventor, but as it would have been perceived in the state of the art that existed at the time the invention was made." Sensonics Inc. v. Aerosonic Corp. 38 USPQ 2d 1551, 1554 (CAFC, 1996), citing Interconnect Planning Corp. v. Feil, 774 F. 2d 1132, 1138, 227 USPQ 543, 547 (CAFC, 1985).

With respect to claims 19 and 25, Marshall does not disclose or suggest a histogram as recited in these claims. Ward Declaration, Paragraph No. 9. Chang also does not disclose or suggest a histogram as recited in these claims. Accordingly, any combination of Marshall and Chang lacks a histogram and, therefore, cannot render these claims obvious.

For the reasons set forth above, it is submitted that the rejection of claims 18-21 and 24-27 under 35 U.S.C. 103(a) is erroneous and should be withdrawn.

The Office Action rejects claims 22, 23, 28 and 29 under 35 U.S.C 103(a) as unpatentable over the combination system of Marshall and Chang, as applied in claims 21 and 27, in further view of U.S. Patent No. 5,918,217 to Maggioncalda et al., hereafter Maggioncalda.

For the reason that the combination system of Marshall and Chang does not render claims 21 and 27 and their respective parent claims 18 and 24 obvious for the reasons discussed above, it is submitted that the rejection of claims 22, 23, 28 and 29 is also erroneous.

The Office Action concedes that neither Marshall nor Chang discloses that the investment parameters and parameter limiters be presented in a first area of the viewing screen and the histogram be presented in a second area of the screen. Maggioncalda is cited for showing in Fig. 4 a user interface "where the filter conditions are on the same screen as the resultant bar graph in order to provide the ease of seeing both without flipping from screen to screen."

As noted above, neither Marshall nor Chang discloses a histogram. Maggioncalda discloses a bar chart and not a histogram. Ward Declaration, Paragraph No. 13. Since neither Marshall, Chang nor Maggioncalda discloses a histogram, the combination thereof does not meet the language of claims 22, 23, 28 and 29 and, therefore, does not make these claims obvious.

Moreover, one of ordinary skill in the art of virtual reality world of Marshall or one skilled in the art of bubble domain relational database of Chang would not look to the financial advisory art of Maggioncalda because these arts are completely non-analogous. Ward Declaration, Paragraph No. 14.

The Office Action suggestion to use Marshall, Chang and Maggioncalda in combination is improperly based on the hindsight of Applicant's disclosure. Such hindsight reconstruction of the art cannot be the basis of a rejection under 35 U.S.C. 103. The prior art itself must suggest that modification or provide the reason or motivation for making such modification. In re Laskowski, 871 F.2d 115, 117, 10 USPQ 2d 1397, 1398-1399 (CAFC, 1989). "The invention must be viewed not after the blueprint has been drawn by the inventor, but as it would have been perceived in the state of the art that existed at the time the invention was made." Sensorics Inc. v. Aerosonic Corp. 38 USPQ 2d 1551, 1554 (CAFC, 1996), citing Interconnect Planning Corp. v. Feil, 774 F. 2d 1132, 1138, 227 USPQ 543, 547 (CAFC, 1985).

For the reason set forth above, it is submitted that the rejection of claims 22, 23, 28 and 29 under 35 U.S.C. 103(a) is erroneous and should be withdrawn.

The Office Action rejects claim 43 under 35 U.S.C 103(a) as unpatentable over Marshall, as applied in claims 21, 27 and 42, in view of Maggioncalda.

This rejection is erroneous because Marshall lacks all of the steps of claim 42 as noted above in the discussion of claim 42. Maggioncalda does not supply any of these deficiencies. Therefore, it is submitted that the rejection of claim 43 is erroneous and should be withdrawn.

Further, Maggioncalda does not disclose or teach an actuator for each of the filter conditions that is presented in close proximity to any of the bars of the bar chart. Accordingly, any combination of Marshall and Maggioncalda does not make obvious that which is recited in claim 43.

For the reason set forth above, it is submitted that the rejection of claim 43 under 35 U.S.C. 103(a) is erroneous and should be withdrawn.



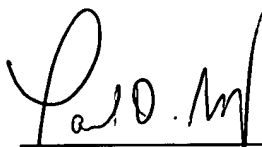
In Paragraph No. 8 of the Office Action, the Examiner states that "as for the combination of references, solving the same problem of efficient data display in the same environment of computerized data mining makes sense." This statement is not understood and appears to be totally out of context to the specific rejections made in the Office Action. None of the cited references relates to "data mining". If the statement is really pertinent to the rejections, the Examiner is specifically requested to offer a detailed explanation supported by specific evidence other than unsupported references to data mining and windows environments.

Newly presented claims 48 and 49 recite that each population chart includes a plurality of display elements that each have a numerical designation of a distribution of the population. Support for this feature is provided in Figs. 2 and 4-20 and accompanying description. Neither Marshall, Chang nor Maggioncalda discloses this feature. Accordingly, it is submitted that claims 48 and 49 distinguish from the cited art and are, therefore, allowable.

It is respectfully requested for the reasons set forth above that the rejections under 35 U.S.C. 102(b) and 35 U.S.C. 103(a) be withdrawn, that claims 18-29 and 42-49 be allowed and that this application be passed to issue.

Respectfully Submitted,

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